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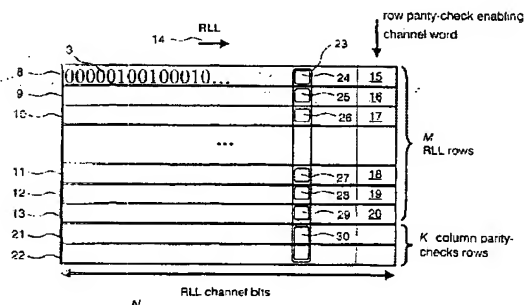
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(54) Title: **SIGNAL, STORAGE MEDIUM, METHOD AND DEVICE FOR ENCODING, METHOD AND DEVICE FOR DECODING**



(57) Abstract: The invention relates to a signal comprising a runlength limited (RLL) encoded binary d,k channel bitstream 3, wherein parameter d defines a minimum number and parameter k defines a maximum number of zeroes between any two ones of said bitstream 3 or vice versa, comprising a number of sections of respectively N successive RLL channel bits, called RLL rows 8-13, 45, each RLL row 8-13, 45 representing a parity-check code-word, called row parity-check code-word, in which a so-called row-based parity-check constraint for said RLL row 8-13, 45 has been realized, characterized in that K sections of respectively N successive channel bits, called column parity-check rows 21, 22, 43, 44, 46, are located at predetermined positions of a group of M RLL rows 8-13, 45. K, N and M being integer values, said column parity-check rows 21, 22, 43, 44, 46 comprising a plurality of column parity-check enabling channel words 30, 42, 48, wherein each of said column parity-check check enabling channel words 30, 42, 48 realizes a so-called column-based parity-check constraint for all so-called corresponding segments 24-29 of at least said M RLL rows 8-13, 45 of said group that correspond to a specific column parity-check enabling channel word 30, 42, 48), hereby constituting a column parity-check codeword. Furthermore, the invention relates to a storage medium comprising such a signal as well as a method and a device for encoding a stream of user data bits into such a signal as well as a method and a device for decoding such a signal.

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International Application No.

PC IB 03/01542

## A. CLASSIFICATION OF SUBJECT MATTER

IPC-7 H03M5/14 H03M13/11 H03M13/29

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, IBM-TDB, COMPENDEX, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	the whole document --- -/--	39

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	COENE W ET AL: "Channel coding and signal processing for optical recording systems beyond DVD" IEEE TRANSACTIONS ON MAGNETICS, IEEE INC. NEW YORK, US, vol. 37, no. 2, pt1, 14 August 2000 (2000-08-14), pages 682-688, XP002204220 ISSN: 0018-9464 figure 8 paragraph 'IV.A!' ---	1-3,5,6, 13-16, 28-38, 47,48
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International Application No

PL., IB 03/01542

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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US 4796260	A	03-01-1989	NONE

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